

CLAIMS

What is claimed is:

Supp 1. A fire suppression system adapted to extinguish a fire within a fuselage of an aircraft comprising:

a reservoir for holding a supply of fire extinguishing medium therein;

at least one nozzle for spraying said fire extinguishing medium over a predetermined area within said fuselage;

at least one supply line for supplying said fire extinguishing medium from the reservoir to the nozzle;

a valve, positionable between a closed position and an open position and operably associated with the supply line, said valve being positionable in said open position when a fire occurs within said fuselage; and

a system for providing a signal to an individual to indicate that said fire extinguishing medium from said reservoir is being communicated through said supply line to said nozzle.

2. The fire suppression system of Claim 1, wherein said reservoir includes a primary reservoir and a secondary reservoir with each said reservoir containing an independent quantity of said fire extinguishing medium, and wherein said fire extinguishing medium contained by said primary reservoir is

09/18/21 07:30:01

evacuated prior to releasing said quantity of fire extinguishing medium from said secondary reservoir.

3. The fire suppression system of Claim 1, further comprising a pressurized fluid source, wherein said pressurized fluid source pressurizes said supply line when said valve is in said open position.

4. The fire suppression system of Claim 3, further comprising a gauge in communication with said pressurized fluid source to indicate a pressure of said pressurized fluid source.

5. The fire suppression system of Claim 1, wherein said nozzle and said valve comprise an integrally formed component, and wherein said valve is closed when a material having a low melting point is affixed to said nozzle, and holding said nozzle closed, when said valve is in said closed position.

6. The fire suppression system of Claim 1, further comprising:
a controller; and
at least one sensor adapted to sense the presence of a fire, wherein said sensor provides a signal to said controller when the fire is detected.

09918221.073001

Sub A1

7. The fire suppression system of Claim 6, wherein said valve comprises a solenoid valve positionable between said open and closed positions in response to a signal from said controller.

8. The fire suppression system of Claim 1, further comprising an actuation sensor, wherein said actuation sensor indicates when fluid is communicated through said fluid supply line and out of said nozzle.

9. A fire suppression system adapted for use with a lavatory of an aircraft comprising:

a fluid supply;

at least one fluid communication line communicating fluid from said fluid supply;

at least one nozzle affixed to said fluid communication line; and

a valve operatively associated with said nozzle and having a closed position and an open position, wherein when said valve assumes said open position when a fire is sensed to allow fluid to be evacuated from said fluid supply through said nozzle.

10. The fire suppression system of Claim 9, wherein said fluid supply comprises a primary supply and a secondary supply, wherein fluid from said primary supply is evacuated prior to fluid from said secondary supply being released.

09918221-073604

Sub A

11. The fire suppression system of Claim 9, further comprising a pressurized fluid source, wherein said pressurized fluid source pressurizes said fluid to force said fluid through said communication line when said valve is opened.

12. The fire suppression system of Claim 11, further comprising a gauge placed in communication with said pressurized fluid source to indicate a pressure within said pressurized fluid source.

13. The fire suppression system of Claim 9, wherein said valve comprises a eutectic valve operable to assume said open position in response to sensing a fire, thereby permitting said fluid to be discharged through said nozzle.

14. The fire suppression system of Claim 9, further comprising:
a controller; and
at least one sensor adapted to sense the presence of a fire, wherein said sensor delivers a signal to said controller when the fire is detected.

15. The fire suppression system of Claim 14, wherein the valve comprises a solenoid valve positionable between said closed and said open positions by said controller.

09916231-073004

Sub A1 16. The fire suppression system of Claim 9, further comprising an actuation sensor, wherein said actuation sensor indicates when said fluid is communicated through said fluid communication lines.

17. A fire suppression system for suppressing a fire within a waste container, comprising:

a fluid reservoir;

at least one nozzle, for producing a fire suppressing mist of fluid supplied from said fluid reservoir;

at least one fluid line connecting said fluid reservoir to said nozzle;


a valve, operatively coupled to said fluid line to control the communication of fluid through said fluid line from said fluid reservoir to said nozzle, said valve having a closed position and an open position;

a system to provide a signal to individual to indicate that fluid has been evacuated through said nozzle via said fluid line; and

a pressurized fluid source to provide pressure to said fluid reservoir to force fluid from said fluid reservoir through said fluid line.

18. The fire suppression system of Claim 17, wherein said fluid reservoir includes a primary reservoir and a secondary reservoir, and wherein fluid from said primary reservoir is evacuated prior to fluid from said secondary reservoir being released therefrom.

109918221-073001

 19. The fire suppression system of Claim 17, further comprising a gauge in communication with said pressurized fluid source to indicate a pressure of said fluid contained within said pressurized fluid source.

20. The fire suppression system of Claim 17, further comprising a sensor adapted to sense the presence of a fire and to generate a signal in response thereto.

21. The fire suppression system of Claim 20, further comprising a controller responsive to said signal from said sensor; and wherein said valve comprises a solenoid valve, said controller being operable to control said operation of said valve between said open and closed positions in response to receipt of said signal from said sensor.

09/18/2017 07:30:00

